

PATENT
0471-0286PUS1

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant: FUSENIG, Norbert et al. Conf.:

Appl. No.: NEW Group:

Filed: July 7, 2004 Examiner:

For: BIOMATERIALS BASED ON HYALURONIC ACID
FOR THE ANTI-ANGIOGENIC THERAPY IN THE
TREATMENT OF TUMOURSL E T T E RCommissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

July 7, 2004

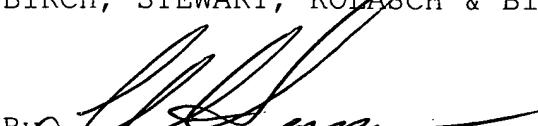
Sir:

The PTO is requested to use the amended sheets/claims attached hereto (which correspond to Article 19 amendments or to claims attached to the International Preliminary Examination Report (Article 34)) during prosecution of the above-identified national phase PCT application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s)

(Rev. 02/12/2004)

CLAIMS

1. Biomaterials constituted by at least one hyaluronic acid derivative, optionally in association with other natural, synthetic and/or semisynthetic biopolymers and with pharmacologically active substances, as an anti-angiogenic therapy to treat primary and secondary tumours.
- 5 2. Biomaterials according to claim 1, wherein the hyaluronic acid derivative is a benzyl ester.
3. Biomaterials according to claim 1, wherein the hyaluronic acid derivative is cross-linked.
- 10 4. Biomaterials according to claim 1, wherein the natural biopolymer is selected from the group consisting of collagen, cellulose, polysaccharides, chitin, chitosan, pectins, agar, gellan and alginic acid.
5. Biomaterials according to claim 1, wherein the synthetic biopolymer is selected from the group consisting of polylactic acid (PLA), polyglycolic acid (PGA), polyurethanes and polysulphonic resins.
- 15 6. Biomaterials according to claim 1, wherein the semisynthetic biopolymer is selected from the group consisting of collagen cross-linked with aldehydes, diamine and gellan.
- 20 7. Biomaterials according to claim 1, wherein the biopolymer may optionally be in association with pharmacologically active substances such as fluorouracil, methotrexate, cis-platinum, carboplatin, oxaliplatin, ethopoxide, cyclophosphamide, vincristine, doxorubicin.
8. The use of biomaterials constituted by at least one hyaluronic acid derivative, optionally in association with other natural, synthetic and/or semisynthetic biopolymers and with pharmacologically active substances, as an anti-angiogenic therapy for the treatment of primary and secondary tumours.

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ART 34 MDT

9. The use of biomaterials according to claim 8, wherein the hyaluronic acid derivative is a benzyl ester.

10. The use of biomaterials according to claim 8, wherein the hyaluronic acid derivative is cross-linked.

5 11. The use of biomaterials according to claim 8 wherein the natural biopolymer is selected from the group consisting of collagen, cellulose, polysaccharides, chitin, chitosan, pectins, agar, gellan and alginic acid.

12. The use of biomaterials according to claim 8 wherein the synthetic biopolymer is selected from the group consisting of polylactic acid (PLA),
10 polyglycolic acid (PGA), polyurethanes and polysulphonic resins.

13. The use of biomaterials according to claim 8 wherein the semisynthetic biopolymer is collagen cross-linked with aldehydes, diamine and gellan.

14. The use of biomaterials according to claim 8 wherein the biopolymer may optionally be in association with pharmacologically active substances
15 such as fluorouracil, methotrexate, cis-platinum, carboplatin, oxaliplatin, ethopoxide, cyclophosphamide, vincristine and doxorubicin.

15. The use of a biomaterial according to claim 8 wherein the hyaluronic acid derivative is made into a non-woven felt, sponge, microsphere, film, membrane and/or other three-dimensional structures.

20 16. The use of biomaterials constituted by at least one hyaluronic acid derivative, optionally in association with other natural, synthetic and/or semisynthetic biopolymers and with pharmacologically active substances, for the treatment and care of primary and secondary tumours when the tumour has been surgically removed and the cavity that is thus formed requires filling,
25 making it advantageous to prevent and/or inhibit the angiogenic process using the biomaterial itself.

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